

**RESPONSE UNDER 37 C.F.R. § 1.111**  
**U. S. Application No. 09/817,251**

**REMARKS**

Claims 1-7 and 11-17 are all the claims pending in the application.

Reconsideration and review of the claims on the merits are respectfully requested.

***Formal Matters***

Applicants appreciate that the Examiner has acknowledged Applicants' claim for foreign priority and receipt of the priority document.

Applicants also appreciate that the Examiner has reviewed and considered the references cited in the Information Disclosure Statement filed January 30, 2004.

***Claim Rejections - 35 U.S.C. § 103***

In response to Applicants previous arguments, the Examiner states that Applicants' arguments with respect to Claims 1-7 and 11-17 have been considered but are moot in view of the new grounds of rejection, listed below.

A. Claims 1-5 are rejected under 35 U.S.C. 103(a) as assertedly being unpatentable over Cloud Jr. (U.S. Pat. No. 1,031,562) in view of Chestney (U.S. Pat. No. 4,077,629).

The Examiner cites Cloud Jr, as teaching a method using a water gun whereby liquid is manipulated by sucking in a nozzle a fluid and then discharging the fluid from the same nozzle. The Examiner cites Cloud Jr. as disclosing all of the recited subject matter as defined within the scope of the claims with the exception of directly discharging the liquid at a different horizontal position in which the position in which the liquid is sucked.

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The Examiner cites Chestney as teaching a method of manipulating liquid whereby one uses a water gun intake nozzle to suck up liquid from a pool and then the discharge nozzle is positioned to a different orientation to attempt to shoot an object in the same pool. The Examiner notes that whereby this is a game, a player will inherently miss the object and liquid from the water gun will be discharged directly onto the surface of the main liquid of the pool and thereby directly causes a mixing interaction with the discharged liquid with the pool.

Applicants respectfully traverse this rejection.

The Examiner applies Cloud Jr. as the primary reference for teaching a “method in a water gun whereby liquid is manipulated by sucking in a nozzle 11 a fluid and then discharging the fluid from the same nozzle 11.” However, Cloud Jr. does not appear to disclose or suggest a method in accordance with the present invention. Cloud Jr. relates to improvements in guns, with particular application to a fluid gun. For example, there is no disclosure or suggestion of discharging fluid from the fluid gun “directly into liquid remaining in the [same] container”, “to thereby stir the liquid”.

Furthermore, Applicants submit that Cloud Jr. is not properly combinable with a secondary reference such as Chestney. These references each encompass different nonanalogous fields of art, and neither encompasses the field of art of the present invention. Cloud Jr. is directed to an improvement in guns, while Chestney is directed to a sea battle game apparatus involving two or more toy water guns in a pool. Cloud Jr. encompasses a one nozzle fluid gun. Chestney encompasses a totally different design using a hose to draw water from a pool and squirting the water from a water gun nozzle which is a completely different passageway from the intake hose. Furthermore, Applicants submit that the Examiner provides no intrinsic motivation

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from either of these references for their combination. There is no motivation to replace the water gun of Chestney, which is more efficient in its two-nozzle design for its game-playing purpose, with the one nozzle fluid gun of Cloud Jr.

However, even when Cloud Jr. is combined with a secondary reference such as Chestney, each and every element of the present invention is still not disclosed or suggested by their combination. For example, neither reference, separately or in combination thereof, discloses or suggests at least discharging fluid from the fluid gun “directly into liquid remaining in the [same] container”, “to thereby stir the liquid”. Chestney teaches squirting water from a water gun for the purpose of filling with water an opponent’s toy ship hull.

It would not have been obvious to one of ordinary skill in the art to provide for the use of Cloud Jr.’s water gun where it is used inside a pool container whereby the suction and discharge of the liquid is taken from the same pool water (liquid) and further provide a step of attempting to spray the discharged water away from the user and the point of liquid suction so as to spray an object or to spray directly onto the pool water surface in order to mix the liquid in the pool. Applicants respectfully submit that there is no substantial mixing of the pool water. Therefore, Applicants traverse that the combination of Cloud Jr. and Chestney does not render *prima facie* obvious the present invention.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

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B. Claims 1-5 and 7 are rejected under 35 U.S.C. 103(a) as assertedly being unpatentable over JP 62184357 (JP '357 cited on PTO 1449) in view of Qureshi et al (U.S. Pat. No. 5,383,372 - newly cited).

The Examiner cites JP '357 as teaching a method of mixing, as described in the Office Action and the Abstract, to easily and quickly stir liquid with an automatic clinical specimen inspecting apparatus, etc., by alternately repeating a process for lowering a pipette to hold the top end thereof under the liquid surface and sucking the liquid and process for rising the pipette to hold the top end above the liquid surface and discharging the liquid.

The Examiner asserts that the JP '357 reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of moving the pipette to a different horizontal position of the nozzle so that when the fluid is discharged, discharged fluid is discharged directly into the liquid in the container at a discharging position horizontally different from the sucking position. The Examiner states that the JP '357 teaching does not require the nozzle to be in the same horizontal position to perform the method.

The Examiner cites Oureshi et al as teaching that a pipette may be hand held for the suction and dispensing of a liquid (and also discharged with air blown out if desired) for a more precise measurement and delivery of liquids.

The Examiner concludes that in view of the teaching of Oureshi that one may use a hand held pipette to suck and dispense liquids, it would have been obvious to one of ordinary skill in the art to modify the step of JP '357 with a use of a handheld pipette so that mechanical equipment costs are minimized when using the mixing method of JP '357. The Examiner asserts that when a hand held device is used, the process of mixing as taught by JP '357 would have

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inherent variations in the horizontal and vertical positioning of the hand held pipette nozzle by the user when performing the suction and discharge, since the human hand may not readily replicate an exact positioning of a machine.

Applicants respectfully traverse the rejection .

Applicants traverse that the combination of JP '357 and Oureshi does not disclose or suggest each and every element of Applicants' claims. For example, neither reference, separately or in combination thereof, discloses or suggests at least "discharging the sucked liquid ...directly into liquid ...at a discharging position which is horizontally different from a sucking position... to thereby stir the liquid". Although the Examiner believes that the process of mixing as taught by JP '357 would have inherent variations in the horizontal and vertical positioning of the hand held pipette nozzle by the user when performing the suction and discharge since the human hand may not readily replicate an exact positioning of a machine, this is not disclosed or suggested in JP '357, and it is not necessarily the case that any horizontal positioning would be different. Therefore, Applicants traverse that there is no inherent variation.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

C. Claim 6 is rejected under 35 U.S.C. 103(a) as assertedly being unpatentable over JP 62184357 (JP '357) in view of Qureshi et al (U.S. Pat. No. 5,383,372) as applied to Claim 1 above, and further in view of Makino et al (U.S. Pat. No. 5,555,767).

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The Examiner asserts that JP '357 in view of Qureshi et al discloses all of the recited subject matter as defined within the scope of the claims with the exception of discharging the liquid toward an inclined wall of a container.

The Examiner cites Makino as disclosing that a mixing method of blood may be used with a container having straight sides as seen in Figures 1-2 or with a container having inclined sides in Figures 3-5, that one may place a nozzle in a position near and directed toward the incline when dispensing the fluid into the container as seen in, for example, Figures 3B, 3D, 4B, 4D, and that a container with an inclined wall provides good stirring and mixing performance.

The Examiner concludes that in view of the teaching of Makino, it would have been obvious to one of ordinary skill in the art to provide for the method of JP '357 as modified by Oureshi et al with the use of a container with an inclined wall and further to dispense the fluid toward the incline so as to produce good stirring and mixing performance with the discharge of the fluid into the main liquid sample.

Applicants respectfully traverse the rejection.

Applicants traverse that Makino fails to overcome the deficiencies of JP '357 and Oureshi as described above. For example, none of these references, separately or in combination thereof, discloses or suggests at least “discharging the sucked liquid ...directly into liquid ...at a discharging position which is horizontally different from a sucking position... to thereby stir the liquid”.

Makino discloses a method of mixing a small amount of a liquid sample 1 with a second liquid 2 . For this purpose, the liquid sample 1 may be introduced into a container by bringing a droplet of the liquid sample 1 into contact with the inclined inner wall of a container (see Fig.

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4B). The second liquid 2 is then introduced onto the liquid sample 1 to mix and stir both liquids. The second liquid 2 is introduced into the container 24 by moving a pipette 12 containing the second liquid 2 toward the inner wall of the container 24 when the liquid sample 1 is placed on the inner wall of the container 24.

Makino also teaches that the resulting mixed liquid can be sucked and discharged for a uniform mixing (see col. 8, lines 34-40). However, as clearly shown in Figs. 2F-2G, the repeated suction and discharge steps take place with the pipette 12 immersed in the liquid and positioned in the same horizontal position (see Figs. 2F-2G and col. 8, lines 34-40).

Although Makino teaches a horizontal movement of a pipette to introduce a liquid from outside into a container as well as a repeated suction and discharge step by using the pipette, which is immersed in the liquid in the same horizontal position, Makino does not provide motivation to perform the repeated suction and discharge by horizontally moving the pipette. Nowhere in Makino is there a teaching or suggestion that the pipette containing a liquid, which is sucked from a container, is moved horizontally from a sucking position to another position where the liquid is discharged back into the container for a more efficient stirring.

Applicants previously submitted a Declaration Under 37 C.F.R. § 1.132 which includes data demonstrating the advantages of using the mixing method according to Claim 1 of the present invention as compared to the mixing method as disclosed by Makino.

The results in the Declaration show that the method of making the present invention according to Conditions A and D is superior to the method of Makino according to Conditions C and F in which sucking and discharging are carried out while the top of the nozzle is sunk in the liquid. Makino discusses that the stirring effects by sucking and discharging at the same position

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in the same liquid are not clear (see col. 12, lines 19-40 and col. 13, lines 46-49). In the present invention, this point is clarified.

When the liquid is sucked from the container and discharged into the same container, it is apparent from the comparison of the results between Conditions A and B and the comparison of the results between Conditions C and D and that the horizontal movement of the nozzle according to the present invention provides stirring having excellent effects.

In the present invention, the same effects can be obtained in Condition D in which the sucked and discharged amount is small, similar to the effects in Condition A in which the sucked and discharged amount is large. On the other hand, in Conditions B, C, E and F, the effects are insufficient, even if the top of the nozzle is in the air when the liquid is discharged.

Accordingly, the comparative data set forth in the previously submitted Declaration is evidence of the unexpected superiority of the invention not expected in view of the prior art.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

***Potential Double Patenting Rejection***

The Examiner states that should Claim 6 be found allowable, Claims 11 and 16 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).



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First, Applicants point out that although the Office Action Summary indicates that Claims 1-7 and 11-17 are rejected, there are no detailed comments on the rejection of any of Claims 11-17, other than the Examiner's comments above dealing with a potential double patenting rejection. Therefore, Applicants request clarification from the Examiner as to the status of Claims 11-17 and request that Claims 11-17 be allowed, if no pending rejections are applied against these claims.

Applicants traverse the double patenting rejection.

Claim 6 is dependent from Claim 1, and Claim 1 recites that the sucked liquid is directly discharged into liquid remaining in the container. On the other hand, Claim 11 recites that the sucked liquid is discharged toward the inclination, and it is not defined whether the liquid is present on the inclination. Accordingly, Claims 11 and 16 are not a substantial duplicate of Claim 6.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the double patenting criticism.

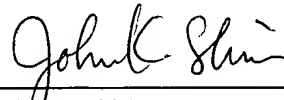
***Conclusion***

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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